



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

SWA3-3

Job Sheet 177609



Part No: SWA3-3

Job Qty: 1 ea

Part Name: Electric Swivel 3,000 lb Safe Work Load (1,360 Kg)



Part Weight: 0 lbs

Status: At Planning

Priority: Medium

Job Created: 5/15/18

Job Tracking No:

Due Date: 7/18/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG SWA3-3 Rev 3 IPP Rev A 18.02.13 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	7/18/18	7/18/18	0.00	0.00	Start Up Small Fab-2		SP 18-7-20
110	Small Fab	1 pcs	7/18/18	7/18/18	0.00	2.00	Small Fab-6		SP 18-7-20 A.P
120	QC	1 pcs	7/18/18	7/18/18	0.00	0.00	QC5		DAS
125	DC	1 pcs	7/18/18	7/18/18	0.00	0.00	DC		21
130	Packaging	1 pcs	7/18/18	7/18/18	0.00	0.00	Packaging3		21
140	QC21-FG	1 Ea	7/18/18	7/18/18	0.00	0.00	QC21		21

Part Op 110 - Assemble as per DWG. Sheet 1 ***All assembly to be done in accordance with SWA3 swivel manual*** Engrave

Descriptions: T/N And / or S/N number as required Using Marktronic engraver as per DWG. Laser engrave dart logo as per DWG.

125 - Photocopy blue file OM & OOPM-SWA3A Rev2

130 - Bag and tag

GREASE AEROSHELL No.7 (M138724) LOCTITE 242 (M138762) SILICONE GE (M138883)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
188-FPSS-832-1/4	Set Screw	1 Ea (1 ea)	90-Start up Operation	SO27241
92210A303	Flat Socket Cap Screw	4 pcs (4 ea)	110-Small Fab	SO31242
EL-PLUG-F	3-Prong Female Spade Plug	1 Ea (1 ea)	110-Small Fab	SO31223
EL-PLUG-M	3-Prong Male Spade Plug	1 Ea (1 ea)	110-Small Fab	SO54451
EL314-SJTOW	3 Wire	6 ft (6 ea)	110-Small Fab	SO47767
SWA3-100	Upper End - Swa3 Swivel	1 Ea (1 ea)	110-Small Fab	SO29397
SWA3-200	Lower End	1 Ea (1 ea)	110-Small Fab	SO29398
SWA3-300	Wire Clamp	2 Ea (2 ea)	110-Small Fab	SO68655
SWA3-400	Button Head Screw	2 Ea (2 ea)	110-Small Fab	SO68655
SWA3-500B	Contact Spacer	1 Ea (1 ea)	110-Small Fab	SO29401
SWA3-600	O-Ring	1 Ea (1 ea)	110-Small Fab	SO74159
SWA3-700	Ball Bearing	32 Ea (32 ea)	110-Small Fab	
SWA6A-1900	Female Spade Terminal - 1/4"	6 Ea (6 ea)	110-Small Fab	SO54255
SWA6A-900B	Rotary Contact	1 Ea (1 ea)	110-Small Fab	SO72651

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	188-FPSS-832-1/4	1	83	0
110-Small Fab	92210A303	4	60	0
	EL-PLUG-F	1	32	0
	EL-PLUG-M	1	55	0

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

EL314-SJTOW	6	988	0
SWA3-100	1	0	0
SWA3-200	1	0	0
SWA3-300	2	10	0
SWA3-400	2	12	0
SWA3-500B	1	0	0
SWA3-600	1	0	0
SWA3-700	32	648	0
SWA6A-1900	6	242	0
SWA6A-900B	1	2	0

Part Specifications

Specifications could not be found.

Plex 5/15/18 10:23 AM Dart.lajeunesse.marie



Container No: S082979



Part: SWA3-3
Job No: 177609
Serial No/Batch: S082979

Revision: 3

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 06/21/18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

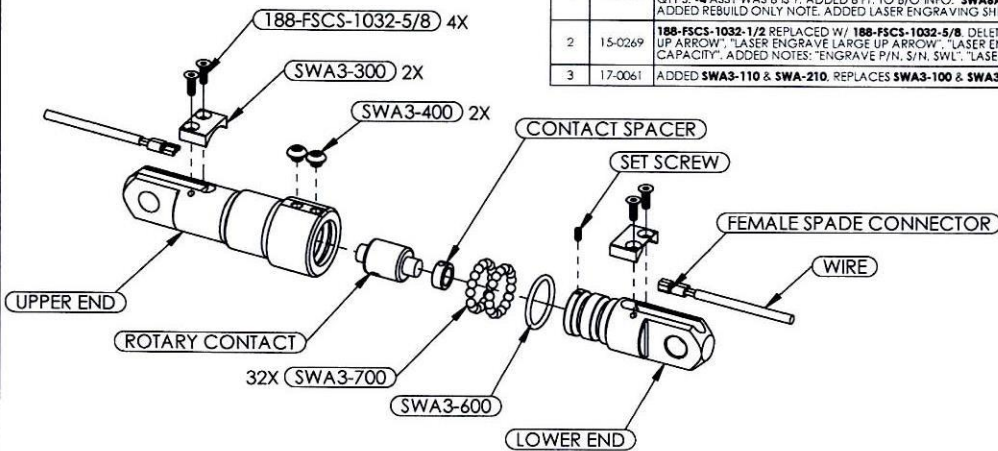
QA Closed: _____ Date: _____

Work Order update only ☐

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
A		REPLACED ID DECAL 600.1318 WITH LASER ETCHING	11/16/2012	JAG	
B		REMOVED 2 WIRE HARNESS	8/8/2013	JAG	RW
1	15-0079	UPDATED TO NEW DRAFTING STANDARDS. ADDED SWA6A-2000, 188-FPSS-832-3/8, EL314-SJTOW CHD QTY'S: -2 ASSY WAS 6 IS 1, -3 ASSY WAS 6 IS 1, ADDED 6 FT. TO B/O INFO. EL404-ARTIC CHD QTY'S: -4 ASSY WAS 6 IS 1, ADDED 6 FT. TO B/O INFO. SWA6A-1900 CHD QTY'S: -4 ASSY WAS 8 IS 4. ADDED REBUILD ONLY NOTE. ADDED LASER ENGRAVING SHEET.	4/16/2015	DPD	JAG
2	15-0269	188-FSCS-1032-1/2 REPLACED W/ 188-FSCS-1032-5/8. DELETED NOTES: 2X "LASER ENGRAVE SMALL UP ARROW", "LASER ENGRAVE LARGE UP ARROW", "LASER ENGRAVE DART LOGO P/N S/N CAPACITY". ADDED NOTES: "ENGRAVE P/N, S/N, SWL", "LASER ENGRAVE DART LOGO".	9/23/2015	DPD	JAG
3	17-0061	ADDED SWA3-110 & SWA-210. REPLACES SWA3-100 & SWA3-200 IN -4 ASSY.	3/23/2017	DPD	JAG



-2 QTY.	-3 QTY.	-4 QTY.	B/O	Part #	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
1	1	-		SWA3-100	UPPER END			1
-	-	1		SWA3-110	UPPER END			1
1	1	-		SWA3-200	LOWER END			1
-	-	1		SWA3-210	LOWER END			1
2	2	2		SWA3-300	WIRE CLAMP			1
2	2	2		SWA3-400	BUTTON HEAD SCREW			1
1	-	-		SWA3-500	CONTACT SPACER			1
-	1	1		SWA3-500B	CONTACT SPACER			1
1	1	1		SWA3-600	O-RING			1
32	32	32	B/O	SWA3-700	BALL BEARING	S.S.	Ø1/4 MCMASTER-CARR #9529K15	1
1	-	-	B/O	SWA6A-900A	ROTARY CONTACT		MERCOTAC #230	1
-	1	-	B/O	SWA6A-900B	ROTARY CONTACT		MERCOTAC #330	1
-	-	1	B/O	SWA6A-900C	ROTARY CONTACT		MERCOTAC #430	1
4	4	4	B/O	188-FSCS-1032-5/8	FLAT SOCKET CAP SCREW	S.S.	10-32 x 5/8 (MCMASTER-CARR #92210A303)	1
1	1	-	B/O	EL314-SJTOW	3 WIRE		6 FT. (TEXCAN #EL 314-SJTOW 3/14)	1
-	-	1	B/O	EL414-ARTIC	4 WIRE		6 FT. (TRUCK & AUTO SUPPLY #EL 414-ARTIC 4/14)	1
-	1	1	B/O	188-FPSS-832-1/4	SET SCREW	18-8 S.S.	8-32 X 1/4 MCMASTER-CARR #92311A190	1
1	-	-	B/O	188-FPSS-832-3/8	SET SCREW	S.S.	8/32 X 3/8 (MCMASTER-CARR #92311A192)	1
4	6	4	B/O	SWA6A-1900	1/4" FEMALE SPADE CONNECTOR		(MCMASTER-CARR #69525K16)	1
-	-	4	B/O	SWA6A-2000	1/8" FEMALE SPADE CONNECTOR		(MCMASTER-CARR #69525K14)	1
1	1	1	B/O	600.1319	UP DECAL			N/S
1	1	1	B/O	EL-PLUG-F	FEMALE PLUG	PE High Density	(MCMASTER-CARR #7216K6)	1
1	1	1	B/O	EL-PLUG-M	MALE PLUG	PE High Density	(MCMASTER-CARR #7216K5)	1

NOTES:
1. ALL ASSEMBLY TO BE DONE IN ACCORDANCE WITH SWA3 SWIVEL MANUAL.
2. FOR CUSTOMER REBUILD ONLY.

DART
AEROSPACE
SWA3 SWIVEL

TITLE	SWA3	REV 3
DWG NO.	SWA3	
MAT'L		
REAT		
FINISH		
SPEC		
DRAWN BY:	CANAM	
CHECKED:	SM 03/23/2017	
OPPS APPR:	AA 03/28/2017	
QA APPR:	JL 04/05/2017	
APPROVED:	JAG 04/11/2017	
SCALE	1:4	DATE
SHEET 1 OF 2		

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ± 1/8°
.X ± .1 SURFACES = 125
1. BREAK ALL SHARP EDGES
.016 x 45° OR .016R
2. DIMENSIONAL LIMITS APPLY
AFTER PLATING
3. INTERPRET DIM AND TOL PER
ASME Y14.5M-2009
USED ON MODEL

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

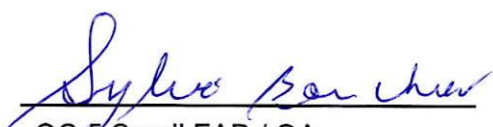
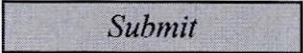
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Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Work Order 177609

Customer _____

Number of Wires 3Date 2018/07/20Serial Number 5082979

Number of Cycles	Load (Lbs.)	Action	Pass/Fail
1	3,000	Check for Conductivity against all wires.	- PASS
1	3,000	Check all wires for grounding against swivel body.	- PASS
1	1,500	Check for Conductivity against all wires.	- PASS
1	1,500	Check all wires for grounding against swivel body.	- PASS
1	750	Check for Conductivity against all wires.	- PASS
1	750	Check all wires for grounding against swivel body.	- PASS
1	0	Check for Conductivity against all wires.	- PASS
1	0	Check all wires for grounding against swivel body.	- PASS

Test Conducted By: ALAIN PATRY
TechnicianSignature: 
QC-5 Small FAB / QASubmit